

RRRRRRRRRRRR		UUU	UUU	NNN	NNN	000000000	FFFFFFFFFFF	FFFFFFFFFFF
RRRRRRRRRRRR		UUU	UUU	NNN	NNN	000000000	FFFFFFFFFFF	FFFFFFFFFFF
RRRRRRRRRRRR		UUU	UUU	NNN	NNN	000000000	FFFFFFFFFFF	FFFFFFFFFFF
RRR	RRR	UUU	UUU	NNN	NNN	000	FFF	FFF
RRR	RRR	UUU	UUU	NNN	NNN	000	FFF	FFF
RRR	RRR	UUU	UUU	NNN	NNN	000	FFF	FFF
RRR	RRR	UUU	UUU	NNNNNN	NNN	000	FFF	FFF
RRR	RRR	UUU	UUU	NNNNNN	NNN	000	FFF	FFF
RRR	RRR	UUU	UUU	NNNNNN	NNN	000	FFF	FFF
RRRRRRRRRRRR		UUU	UUU	NNN	NNN	000	FFFFFFFFF	FFFFFFFFF
RRRRRRRRRRRR		UUU	UUU	NNN	NNN	000	FFFFFFFFF	FFFFFFFFF
RRRRRRRRRRRR		UUU	UUU	NNN	NNN	000	FFFFFFFFF	FFFFFFFFF
RRR	RRR	UUU	UUU	NNN	NNNNNN	000	FFF	FFF
RRR	RRR	UUU	UUU	NNN	NNNNNN	000	FFF	FFF
RRR	RRR	UUU	UUU	NNN	NNNNNN	000	FFF	FFF
RRR	RRR	UUU	UUU	NNN	NNN	000	FFF	FFF
RRR	RRR	UUU	UUU	NNN	NNN	000	FFF	FFF
RRR	RRR	UUU	UUU	NNN	NNN	000	FFF	FFF
RRR	RRR	UUU	UUU	NNN	NNN	000	FFF	FFF
RRR	RRR	UUUUUUUUUUUUUUUU	NNN	NNN	000000000	FFF	FFF	
RRR	RRR	UUUUUUUUUUUUUUUU	NNN	NNN	000000000	FFF	FFF	
RRR	RRR	UUUUUUUUUUUUUUUU	NNN	NNN	000000000	FFF	FFF	

```

BBBBBBBBB      000000      TTTTTTTTTT      PPPPPPPP      AAAAAA      GGGGGGGG
BBBBBBBBB      000000      TTTTTTTTTT      PPPPPPPP      AAAAAA      GGGGGGGG
BB          BB  00          00          TT          PP          PP  AA          AA  GG
BB          BB  00          00          TT          PP          PP  AA          AA  GG
BB          BB  00          00          TT          PP          PP  AA          AA  GG
BB          BB  00          00          TT          PP          PP  AA          AA  GG
BBBBBBBBB      00          00          TT          PPPPPPPP      AA          AA  GG
BBBBBBBBB      00          00          TT          PPPPPPPP      AA          AA  GG
BB          BB  00          00          TT          PP          AAAAAAAAAA  GG  GGGGGG
BB          BB  00          00          TT          PP          AAAAAAAAAA  GG  GGGGGG
BB          BB  00          00          TT          PP          AA          AA  GG  GG
BB          BB  00          00          TT          PP          AA          AA  GG  GG
BBBBBBBBB      000000      TT          PP          AA          AA  GGGGGG
BBBBBBBBB      000000      TT          PP          AA          AA  GGGGGG

```

```

LL          IIIIII          SSSSSSSS
LL          IIIIII          SSSSSSSS
LL          II             SS
LL          II             SS
LL          II             SS
LL          II             SS
LL          II             SSSSSS
LL          II             SSSSSS
LL          II             SS
LL          II             SS
LL          II             SS
LL          II             SS
LLLLLLLLLLLL IIIIII          SSSSSSSS
LLLLLLLLLLLL IIIIII          SSSSSSSS

```

.....

J 8
15-Sep-1984 23:49:55
14-Sep-1984 13:05:35VAX-11 Bliss-32 V4.0-742
[RUNOFF.SRC]BOTPAG.BLI;1Page 1
(1)CAP1
V04-

```
1 0001 0 MODULE BOTPAG (
2 0002 0 IDENT = 'V04-000'
3 P 0003 0 XBLISS32[
4 P 0004 0 ADDRESSING_MODE(EXTERNAL=LONG_RELATIVE, NONEXTERNAL=LONG_RELATIVE)
5 0005 0 ]
6 0006 0 ) =
7 0007 1 BEGIN
8 0008 1
9 0009 1 *****
10 0010 1 *
11 0011 1 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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26 0026 1 * DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE OR RELIABILITY OF ITS
27 0027 1 * SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
28 0028 1 *
29 0029 1 *
30 0030 1 *****
31 0031 1
32 0032 1 ++
33 0033 1 FACILITY: DSR (Digital Standard RUNOFF) / DSRPLUS
34 0034 1
35 0035 1 ABSTRACT: Finishes that part of a page which occurs below the footnotes.
36 0036 1
37 0037 1
38 0038 1 ENVIRONMENT: Transportable
39 0039 1
40 0040 1 AUTHOR: Rich Friday CREATION DATE: 6 November, 1981
41 0041 1
```

Revision History

K 8
15-Sep-1984 23:49:55
14-Sep-1984 13:05:35

VAX-11 Bliss-32 V4.0-742
[RUNOFF.SRC]BOTPA.BLI;1

:	43	0042	1	%SBTTL 'Revision History'
:	44	0043	1	
:	45	0044	1	MODIFIED BY:
:	46	0045	1	
:	47	0046	1	003 KFA00003 Ken Alden 07-Mar-1983
:	48	0047	1	Global edit of all modules. Updated module names, idents,
:	49	0048	1	copyright dates. Changed require files to BLISS library.
:	50	0049	1	
:	51	0050	1	--

Module Level Declarations

```
53 0051 1 %SBTTL 'Module Level Declarations'
54 0052 1
55 0053 1
56 0054 1 | TABLE OF CONTENTS:
57 0055 1 |
58 0056 1 | FORWARD ROUTINE
59 0057 1 |   BOTPAG : NOVALUE,
60 0058 1 |   CPAGEB : NOVALUE;
61 0059 1 |
62 0060 1 | INCLUDE FILES:
63 0061 1 |
64 0062 1 |
65 0063 1 | LIBRARY 'NXPORT:XPORT';           ! XPORT Library
66 0064 1 | REQUIRE 'REQ:RNODEF';           ! RUNOFF variant definitions
67 0195 1 |
68 U 0196 1 | %IF DSRPLUS %THEN
69 U 0197 1 | LIBRARY 'REQ:DPLLIB';           ! DSRPLUS BLISS Library
70 0198 1 | %ELSE
71 0199 1 | LIBRARY 'REQ:DSRLIB';           ! DSR BLISS Library
72 0200 1 | %FI
73 0201 1 |
74 0202 1 |
75 0203 1 | MACROS:
76 0204 1 |
77 0205 1 | This macro makes certain that when blank lines at the top or bottom of a page
78 0206 1 | are skipped change bars don't get output.
79 0207 1 | MACRO
80 M 0208 1 |   NO_BAR_SKIP (N) =
81 M 0209 1 |   BEGIN
82 M 0210 1 |   LOCAL
83 M 0211 1 |   HOLD_BARS;
84 M 0212 1 |   HOLD_BARS = .TSF_BARS;
85 M 0213 1 |   TSF_BARS = FALSE;
86 M 0214 1 |   USKIPL (N);
87 M 0215 1 |   TSF_BARS = .HOLD_BARS;
88 0216 1 |   END %;
89 0217 1 |
90 0218 1 | EQUATED SYMBOLS:
91 0219 1 |
92 0220 1 |
93 0221 1 |
94 0222 1 | OWN STORAGE:
95 0223 1 |
96 0224 1 |
97 0225 1 | EXTERNAL REFERENCES:
98 0226 1 |
99 0227 1 |
100 0228 1 | EXTERNAL
101 0229 1 |   GCA : GCA_DEFINITION,
102 0230 1 |   HCT : HCT_DEFINITION,
103 0231 1 |   PAGEN : PAGE_DEFINITION,
104 0232 1 |   PHAN : PHAN_DEFINITION,
105 0233 1 |   TPAGER : BLOCKVECTOR [1,PAGE_SCT_SIZE], !List of terminating pages.
106 0234 1 |   TSF : TSF_DEFINITION;
107 0235 1 |
108 0236 1 | EXTERNAL ROUTINE
109 0237 1 |   OUTTXT,
```

BOTPA
V04-000

Module Level Declarations

:	110	0238	1	PACBAS,
:	111	0239	1	PACPAG,
:	112	0240	1	PAGFND,
:	113	0241	1	USKIPL;
:	114	0242	1	

M 8
15-Sep-1984 23:49:55
14-Sep-1984 13:05:35

VAX-11 Bliss-32 V4.0-742
[RUNOFF.SRC]BOTPA.BLI;1

Page 4
(3)

CAP
V04-


```
116 0243 1 GLOBAL ROUTINE BOTPAG : NOVALUE =
117 0244 1
118 0245 1 ++
119 0246 1 FUNCTIONAL DESCRIPTION:
120 0247 1
121 0248 1     See ABSTRACT, above.
122 0249 1
123 0250 1 FORMAL PARAMETERS:      None
124 0251 1
125 0252 1 IMPLICIT INPUTS:        None
126 0253 1
127 0254 1 IMPLICIT OUTPUTS:       None
128 0255 1
129 0256 1 ROUTINE VALUE:
130 0257 1 COMPLETION CODES:       None
131 0258 1
132 0259 1 SIDE EFFECTS: None
133 0260 1
134 0261 1 --
135 0262 1
136 0263 2 BEGIN
137 0264 2
138 0265 2 !Output and center page number at bottom of page if
139 0266 2 !the user has specified that page layout.
140 0267 2 IF
141 0268 2     (.HCT_LAYOUTN NEQ 0)
142 0269 2     AND (.PHAN_LINES_TP NEQ 0)
143 0270 2 THEN
144 0271 2     CPAGEB ();
145 0272 2
146 0273 2 !We've just finished the bottom of a page. And we know how many
147 0274 2 !lines it contains. At this point we need to remember exactly how many
148 0275 2 !physical lines were written so that /SIMULATE can get to the top of
149 0276 2 !the next page later. Note that we can't simply go there because we
150 0277 2 !may be skipping pages due to a /PAGES switch; that means that
151 0278 2 !the next physical page might not occur until several pages later,
152 0279 2 !if it occurs at all.
153 0280 2 IF
154 0281 2     NOT .GCA_SKIP_OUT
155 0282 2 THEN
156 0283 2     PHAN_BOTTOM = .PHAN_LINES_TP;
157 0284 2     !Save current count.
158 0285 2
159 0286 2 !If currently generating output, but there is a list of
160 0287 2 !pages to be output, see if the page just finished terminates
161 0288 2 !a particular list of pages. If so, turn off output.
162 0289 2 IF!
163 0290 2     .GCA_ORANGE_CNT NEQ 0
164 0291 2 THEN
165 0292 2     IF!
166 0293 2         NOT .GCA_SKIP_OUT
167 0294 2     THEN
168 0295 2         !See if output should be turned off right now.
169 0296 2         GCA_SKIP_OUT = (PAGFND(PAGEN,TPAGER,.GCA_ORANGE_CNT, FALSE) NEQ 0);
170 0297 1 END;
                                !End of BOTPAG
```

```

00000000V EF 00000000G EF 000C 00000
2C A3 50 FC 00000000G EF 9E 00002
00000000G EF 9E 00009
00000000G EF D5 00010
0B 13 00016
63 D5 00018
07 13 0001A
00 FB 0001C
62 E8 00023 1$:
A3 63 D0 00026
50 A2 D0 0002A 2$:
22 25 13 0002E
62 E8 00030
7E D4 00033
50 DD 00035
00000000G EF 9F 00037
00000000G EF 9F 0003D
00000000G EF 04 FB 00043
51 D4 0004A
50 D5 0004C
02 13 0004E
51 D6 00050
62 51 D0 00052 3$:
04 00055 4$:

```

```

.TITLE BOTPA
.IDENT \V04-000\

.EXTRN GCA, HCT, PAGEN
.EXTRN PHAN, TPAGER, TSF
.EXTRN OUTTXT, PACBAS, PACPAG
.EXTRN PAGFND, USKIPL

.PSECT $CODE$,NOWRT,2

.ENTRY BOTPA, Save R2,R3
MOVAB PHAN+12, R3
MOVAB GCA+112, R2
TSTL HCT+32
BEQL 1$
TSTL PHAN+12
BEQL 1$
CALLS #0, CPAGEB
BLBS GCA+112, 2$
MOVL PHAN+12, PHAN+56
MOVL GCA+108, R0
BEQL 4$
BLBS GCA+112, 4$
CLRL -(SP)
PUSHL R0
PUSHAB TPAGER
PUSHAB PAGEN
CALLS #4, PAGFND
CLRL R1
TSTL R0
BEQL 3$
INCL R1
MOVL R1, GCA+112
RET

```

```

: 0243
:
: 0268
: 0269
: 0271
: 0281
: 0283
: 0289
:
: 0292
: 0295
:
:
: 0297

```

; Routine Size: 86 bytes, Routine Base: \$CODE\$ + 0000


```
172 0298 1 GLOBAL ROUTINE CPAGEB :NOVALUE = !
173 0299 1
174 0300 1 ++
175 0301 1 FUNCTIONAL DESCRIPTION:
176 0302 1
177 0303 1 This routine centers and outputs the page number at the bottom of the
178 0304 1 page.
179 0305 1
180 0306 1 FORMAL PARAMETERS: None
181 0307 1
182 0308 1 IMPLICIT INPUTS: None
183 0309 1
184 0310 1 IMPLICIT OUTPUTS: None
185 0311 1
186 0312 1 ROUTINE VALUE:
187 0313 1 COMPLETION CODES: None
188 0314 1
189 0315 1 SIDE EFFECTS: None
190 0316 1
191 0317 1 --
192 0318 1
193 0319 2 BEGIN
194 0320 2
195 0321 2 LOCAL
196 0322 2 HOLD_TOP_PAGE,
197 0323 2 HOLD_PAGING;
198 0324 2
199 0325 2 !If the user doesn't want page numbers then just return. This
200 0326 2 !means that if he says .NO NUMBER, but says to center the page number
201 0327 2 !at the bottom, he still gets the white space.
202 0328 2 IF (NOT .HCT_NUMBER_PAGE)
203 0329 2 AND (.HCT_LAYOUT NEQ LAYOUT_RUN_BOTC) !Generate the number if user wants running page numbers
204 0330 2 THEN
205 0331 2 RETURN;
206 0332 2
207 0333 2 !Turn off paging so a new page is not accidentally started.
208 0334 2 HOLD_PAGING = .PHAN_PAGING;
209 0335 2 HOLD_TOP_PAGE = .PHAN_TOP_PAGE;
210 0336 2 PHAN_PAGING = FALSE;
211 0337 2 PHAN_TOP_PAGE = FALSE;
212 0338 2
213 0339 2 !Position down to fill all lines except line where the page number goes.
214 0340 2 NO_BAR_SKIP (.PHAN_LLLINES - (1 + .PHAN_LINES_TP));
215 0341 2
216 0342 2 !Now generate the page number in a temporary buffer.
217 0343 2 BEGIN
218 0344 2 LOCAL
219 0345 2 WORK_AREA : VECTOR[CH$ALLOCATION(100)],
220 0346 2 WORK_LENGTH,
221 0347 2 WORK_PTR;
222 0348 2
223 0349 2 WORK_PTR = CH$PTR (WORK_AREA);
224 0350 2
225 0351 2 !Generate either the running page number between a dash-space combination,
226 0352 2 !or the regular page number.
227 0353 2 IF .HCT_LAYOUT EQL LAYOUT_RUN_BOTC
228 0354 2 THEN
```

```

229      0355 3      !User wants a running page number output.
230      0356 4      BEGIN
231      0357 4      !First generate "- " (dash space)
232      0358 4      CH$WCHAR_A (%C'-' , WORK_PTR);
233      0359 4      CH$WCHAR_A (%C' ' , WORK_PTR);
234      0360 4      WORK_LENGTH = 2;
235      0361 4      !Now insert the running page counter.
236      0362 4      WORK_LENGTH = .WORK_LENGTH + PACBAS (.PAGEN [SCT_RUN_PAGE], WORK_PTR, 10);
237      0363 4      !Now follow with " = " (space dash)
238      0364 4      CH$WCHAR_A (%C' ' , WORK_PTR);
239      0365 4      CH$WCHAR_A (%C'-' , WORK_PTR);
240      0366 4      WORK_LENGTH = .WORK_LENGTH + 2;
241      0367 4      END
242      0368 3      ELSE
243      0369 3      !Center the normal page number at the bottom.
244      0370 3      WORK_LENGTH = PACPAG (PAGEN, WORK_PTR); !Convert page number and get length.
245      0371 3
246      0372 3      !Finally, output the page number, centered.
247      0373 3      OUTTXT (CH$PTR(WORK_AREA), .WORK_LENGTH, .GCA_LWIDTH);
248      0374 2      END;
249      0375 2
250      0376 2      !Now restore the paging status and return.
251      0377 2      PHAN_PAGING = .HOLD_PAGING;
252      0378 2      PHAN_TOP_PAGE = .HOLD_TOP_PAGE;
253      0379 1      END; !End of CPAGEB

```

										.ENTRY	C PAGEB, Save R2,R3,R4,R5,R6,R7	:	0298
										MOVAB	TSF, R7	:	
										MOVAB	HCT+28, R6	:	
										MOVAB	PHAN+40, R5	:	
										MOVAB	-104(SP), SP	:	
										BLBS	@HCT+12, 1\$	::	0328
										CMPL	HCT+28, #3	:	0329
										BEQL	1\$	:	
										RET		:	
										MOVL	@PHAN+40, HOLD_PAGING	:	0334
										MOVL	PHAN, HOLD_TOP_PAGE	:	0335
										CLRL	@PHAN+40	:	0336
										CLRL	PHAN	:	0337
										MOVL	TSF, R0	:	0340
										EXTZV	#0, #1, 124(R0), HOLD_BARS	:	
										BICB2	#1, 124(R0)	:	
										SUBL3	PHAN+12, @PHAN+4, R0	:	
										PUSHAB	-1(R0)	:	
										CALLS	#1, USKIPL	:	
										MOVL	TSF, R0	:	
										INSV	HOLD_BARS, #0, #1, 124(R0)	:	
										MOVAB	WORK-AREA, WORK_PTR	:	0349
										CMPL	HCT+28, #3	:	0353
										BNEQ	2\$	:	
										MOVB	#45, @WORK_PTR	:	0358
										INCL	WORK_PTR	:	
										MOVB	#32, -@WORK_PTR	:	0359

	52		6E D6 0006C	INCL	WORK_PTR	
			02 D0 0006E	MOVL	#2, WORK_LENGTH	0360
			0A DD 00071	PUSHL	#10	0362
		04	AE 9F 00073	PUSHAB	WORK_PTR	
	7E 00000000G		EF 3C 00076	MOVZWL	PAGEN+14, -(SP)	
			03 FB 0007D	CALLS	#3, PACBAS	
	00 BE		50 C0 00084	ADDL2	R0, WORK_LENGTH	0364
			20 90 00087	MOVB	#32, @WORK_PTR	
	00 BE		6E D6 0008B	INCL	WORK_PTR	0365
			2D 90 0008D	MOVB	#45, @WORK_PTR	
	52		6E D6 00091	INCL	WORK_PTR	
			02 C0 00093	ADDL2	#2, WORK_LENGTH	0366
			12 11 00096	BRB	3\$	0353
			5E DD 00098	PUSHL	SP	0370
	00000000G	00000000G	EF 9F 0009A	PUSHAB	PAGEN	
			02 FB 000A0	CALLS	#2, PACPAG	
	52		50 D0 000A7	MOVL	R0, WORK_LENGTH	
		00000000G	FF DD 000AA	PUSHL	@GCA+140	0373
			52 DD 000B0	PUSHL	WORK_LENGTH	
		0C	AE 9F 000B2	PUSHAB	WORK_AREA	
	00000000G		03 FB 000B5	CALLS	#3, OUTTXT	
	00 B5		53 D0 000BC	MOVL	HOLD_PAGING, @PHAN+40	0377
	D8 A5		54 D0 000C0	MOVL	HOLD_TOP_PAGE, PHAN	0378
			04 000C4	RET		0379

; Routine Size: 197 bytes, Routine Base: \$CODE\$ + 0056

: 254 0380 1
: 255 0381 1 END
: 256 0382 0 ELUDOM

!End of module BOTPA

PSECT SUMMARY

Name	Bytes	Attributes
\$CODE\$	283	NOVEC, NOWRT, RD, EXE, NOSHR, LCL, REL, CON, NOPIC, ALIGN(2)

Library Statistics

File	Total	Symbols Loaded	Percent	Pages Mapped	Processing Time
\$255\$DUA28:[SYSLIB]XPORT.L32;1	590	0	0	252	00:00.1
\$255\$DUA28:[RUNOFF.SRC]DSRLIB.L32;1	1248	26	2	86	00:00.2

BOTPAG
V04-000

Module Level Declarations

F 9
15-Sep-1984 23:49:55
14-Sep-1984 13:05:35

VAX-11 Bliss-32 V4.0-742
[RUNOFF.SRC]BOTPAG.BLI;1

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(5)

COMMAND QUALIFIERS

```
;
;      BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LIS$:BOTPAG/OBJ=OBJ$:BOTPAG MSRC$:BOTPAG/UPDATE=(ENH$:BOTPAG)
; Size:      283 code + 0 data bytes
; Run Time:   00:06.4
; Elapsed Time: 00:18.2
; Lines/CPU Min: 3581
; Lexemes/CPU-Min: 16096
; Memory Used: 67 pages
; Compilation Complete
```


0337 AH-BT13A-SE
VAX/VMS V4.0

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